

Amendments to the Claims

1-51 Canceled

52. (New) A method, comprising:

maintaining, in a first data store, information pertaining to a plurality of instances of a business process, wherein each of the instances of the business process comprises a plurality of activities that need to be performed, and wherein the activities are performed by activity components which are distributed across a network;

accessing a second data store, wherein the second data store contains messages received from the activity components pertaining to performance of the activities by the activity components;

obtaining a particular message from the second data store, wherein the particular message comprises activity performance information;

determining a particular activity of a particular instance of the business process to which the particular message pertains; and

updating, in the first data store, information pertaining to the particular activity of the particular instance of the business process to reflect the activity performance information in the particular message.

53. (New) The method of claim 52, wherein the second data store acts as a centralized message repository for enabling activity components distributed across a network to communicate information pertaining to the activities performed by the activity components.

54. (New) The method of claim 53, wherein the activity components communicate using different message formats, and wherein the method further comprises:

translating messages received from the activity components into a particular message format; and

storing the messages in the second data store in the particular message format.

55. (New) The method of claim 52, further comprising:

deleting the particular message from the second data store after the particular message has been obtained.

56. (New) The method of claim 52, wherein updating the information pertaining to the particular activity comprises:

extracting an activity completion time from the particular message; and

storing the activity completion time in the first data store in association with the particular activity of the particular instance of the business process.

57. (New) The method of claim 56, wherein the first data store comprises an activity start time associated with the particular activity of the particular instance of the business process, and wherein the method further comprises:

computing, based upon the activity start time and the activity completion time, a duration of time required to complete the particular activity of the particular instance of the business process.

58. (New) The method of claim 57, further comprising:

comparing the duration of time required to complete the particular activity with a reference duration to determine whether the particular activity took longer than expected to complete.

59. (New) The method of claim 57, wherein the particular instance of the business process comprises a plurality of activities including the particular activity, and wherein the method further comprises:

generating a flow diagram for the particular instance of the business process, wherein each activity of the particular instance is represented by a corresponding element, and wherein the particular activity is represented by a particular element; and

rendering, within the particular element or next to the particular element, an indication of the duration of time required to complete the particular activity.

60. (New) The method of claim 52, wherein accessing the second data store comprises:

receiving an interrupt indicating that the second data store has been updated; and  
accessing the second data store in response to the interrupt.

61. (New) The method of claim 52, wherein accessing the second data store comprises:

polling the second data store to determine whether the second data store has been updated with one or more messages from the activity components; and

accessing the second data store in response to a determination that the second data store has been updated.

62. (New) The method of claim 52, wherein the second data store comprises a database, and wherein accessing the second data store comprises:

submitting a query to the database.

63. (New) The method of claim 52, further comprising:

prior to obtaining the particular message from the second data store, storing an activity performance request in the second data store, which requests performance of the particular activity of the particular instance of the business process.

64. (New) The method of claim 63, wherein the second data store acts as a centralized message and request repository for enabling activity components distributed across a network to obtain activity performance requests and to communicate information pertaining to performance of the activities requested by the activity performance requests.

65. (New) The method of claim 64, wherein the activity components communicate using different message formats, wherein the activity performance requests are stored in the second data store in a particular message format, and wherein the method further comprises:

translating the activity performance requests into appropriate message formats for consumption by the activity components.

66. (New) The method of claim 63, further comprising:

assigning an activity start time to the particular activity of the particular instance of the business process; and

storing the activity start time in the first data store in association with the particular activity of the particular instance of the business process.

67. (New) A computer readable medium, comprising:

instructions for causing one or more processors to maintain, in a first data store, information pertaining to a plurality of instances of a business process, wherein each of the instances of the business process comprises a plurality of activities that need to be performed, and wherein the activities are performed by activity components which are distributed across a network;

instructions for causing one or more processors to access a second data store, wherein the second data store contains messages received from the activity components pertaining to performance of the activities by the activity components;

instructions for causing one or more processors to obtain a particular message from the second data store, wherein the particular message comprises activity performance information;

instructions for causing one or more processors to determine a particular activity of a particular instance of the business process to which the particular message pertains; and

instructions for causing one or more processors to update, in the first data store, information pertaining to the particular activity of the particular instance of the business process to reflect the activity performance information in the particular message.

68. (New) The computer readable medium of claim 67, wherein the second data store acts as a centralized message repository for enabling activity components distributed across a network to communicate information pertaining to the activities performed by the activity components.

69. (New) The computer readable medium of claim 68, wherein the activity components communicate using different message formats, and wherein the computer readable medium further comprises:

instructions for causing one or more processors to translate messages received from the activity components into a particular message format; and

instructions for causing one or more processors to store the messages in the second data store in the particular message format.

70. (New) The computer readable medium of claim 67, further comprising:

instructions for causing one or more processors to delete the particular message from the second data store after the particular message has been obtained.

71. (New) The computer readable medium of claim 67, wherein the instructions for causing one or more processors to update the information pertaining to the particular activity comprises:

instructions for causing one or more processors to extract an activity completion time from the particular message; and

instructions for causing one or more processors to store the activity completion time in the first data store in association with the particular activity of the particular instance of the business process.

72. (New) The computer readable medium of claim 71, wherein the first data store comprises an activity start time associated with the particular activity of the particular instance of the business process, and wherein the computer readable medium further comprises:

instructions for causing one or more processors to compute, based upon the activity start time and the activity completion time, a duration of time required to complete the particular activity of the particular instance of the business process.

73. (New) The computer readable medium of claim 72, further comprising:

instructions for causing one or more processors to compare the duration of time required to complete the particular activity with a reference duration to determine whether the particular activity took longer than expected to complete.

74. (New) The computer readable medium of claim 72, wherein the particular instance of the business process comprises a plurality of activities including the particular activity, and wherein the computer readable medium further comprises:

instructions for causing one or more processors to generate a flow diagram for the particular instance of the business process, wherein each activity of the particular instance is represented by a corresponding element, and wherein the particular activity is represented by a particular element; and

instructions for causing one or more processors to render, within the particular element or next to the particular element, an indication of the duration of time required to complete the particular activity.

75. (New) The computer readable medium of claim 67, wherein the instructions for causing one or more processors to access the second data store comprises:

instructions for causing one or more processors to receive an interrupt indicating that the second data store has been updated; and

instructions for causing one or more processors to access the second data store in response to the interrupt.

76. (New) The computer readable medium of claim 67, wherein the instructions for causing one or more processors to access the second data store comprises:

instructions for causing one or more processors to poll the second data store to determine whether the second data store has been updated with one or more messages from the activity components; and

instructions for causing one or more processors to access the second data store in response to a determination that the second data store has been updated.

77. (New) The computer readable medium of claim 67, wherein the second data store comprises a database, and wherein the instructions for causing one or more processors to access the second data store comprises:

instructions for causing one or more processors to submit a query to the database.



78. (New) The computer readable medium of claim 67, further comprising:  
instructions for causing one or more processors to store, prior to obtaining the particular message from the second data store, an activity performance request in the second data store, which requests performance of the particular activity of the particular instance of the business process.

79. (New) The computer readable medium of claim 78, wherein the second data store acts as a centralized message and request repository for enabling activity components distributed across a network to obtain activity performance requests and to communicate information pertaining to performance of the activities requested by the activity performance requests.

80. (New) The computer readable medium of claim 79, wherein the activity components communicate using different message formats, wherein the activity performance requests are stored in the second data store in a particular message format, and wherein the computer readable medium further comprises:

instructions for causing one or more processors to translate the activity performance requests into appropriate message formats for consumption by the activity components.

81. (New) The computer readable medium of claim 78, further comprising:  
instructions for causing one or more processors to assign an activity start time to the particular activity of the particular instance of the business process; and

instructions for causing one or more processors to store the activity start time in the first data store in association with the particular activity of the particular instance of the business process.

82. (New) A system comprising:

a control component, a monitoring component, a first data store, a second data store, a first activity component, and a network for communicatively coupling the first activity component with the second data store, wherein

the control component comprises:

means for initiating a first instance of a business process, wherein the first instance comprises a first activity;

means for storing, in the first data store, information pertaining to the first activity of the first instance of the business process;

means for storing a first activity performance request in the second data store, which requests performance of the first activity;

the first activity component comprises:

means for accessing the second data store via the network to obtain the first activity performance request therefrom;

means for performing the first activity in response to the first activity performance request;

means for sending a first performance message via the network to the second data store, wherein the first performance message comprises activity performance information pertaining to the first activity;

the monitoring component comprises:

means for accessing the second data store and obtaining the first performance message therefrom;

means for determining that the first performance message pertains to the first activity of the first instance of the business process; and

means for updating, in the first data store, the information pertaining to the first activity of the first instance of the business process to reflect the activity performance information in the first performance message.

83. (New) The system of claim 82, wherein the first activity performance request is stored in the second data store in a common message format, and wherein the means for accessing the second data store via the network to obtain the first activity performance request therefrom comprises:

means for translating the first activity performance request from the common message format into a first message format understood by the first activity component.

84. (New) The system of claim 83, wherein the first performance message is sent by the first activity component in the first message format, and wherein the means for sending the first performance message via the network to the second data store comprises:

means for translating the first performance message from the first message format into the common message format understood by the second data store.

85. (New) The system of claim 82, wherein the first activity component further comprises:

means for causing the first activity performance request to be deleted from the second data store.

86. (New) The system of claim 85, wherein the monitoring component further comprises:

means for causing the first performance message to be deleted from the second data store.

87. (New) The system of claim 82, wherein the means for storing, in the first data store, information pertaining to the first activity of the first instance of the business process comprises:

means for assigning an activity start time to the first activity of the first instance of the business process; and

means for storing the activity start time in the first data store in association with the first activity of the first instance of the business process.

88. (New) The system of claim 87, wherein the activity performance information in the first performance message comprises an activity completion time, and wherein the means for updating, in the first data store, the information pertaining to the first activity of the first instance of the business process comprises:

means for extracting the activity completion time from the first performance message;  
and

means for storing the activity completion time in the first data store in association with the first activity of the first instance of the business process.

89. (New) The system of claim 88, wherein the monitoring component further comprises:

means for computing, based upon the activity start time and the activity completion time, a duration of time required to complete the first activity of the first instance of the business process.

90 (New) The system of claim 89, further comprising:

means for comparing the duration of time required to complete the first activity with a reference duration to determine whether the first activity took longer than expected to complete.

91. (New) The system of claim 82, further comprising a second activity component coupled to the network, wherein the first instance of the business process further comprises a second activity, and wherein

the control component comprises:

means for storing, in the first data store, information pertaining to the second activity of the first instance of the business process;

means for storing a second activity performance request in the second data store, which requests performance of the second activity;

the second activity component comprises:

means for accessing the second data store via the network to obtain the second activity performance request therefrom;

means for performing the second activity in response to the second activity performance request;

means for sending a second performance message via the network to the second data store, wherein the second performance message comprises activity performance information pertaining to the second activity;

the monitoring component comprises:

means for accessing the second data store and obtaining the second performance message therefrom;

means for determining that the second performance message pertains to the second activity of the first instance of the business process; and

means for updating, in the first data store, the information pertaining to the second activity of the first instance of the business process to reflect the activity performance information in the second performance message.

92. (New) The system of claim 91, wherein the first activity performance request is stored in the second data store in a common message format, and wherein the means for accessing the second data store via the network to obtain the first activity performance request therefrom comprises:

means for translating the first activity performance request from the common message format into a first message format understood by the first activity component.

93. (New) The system of claim 92, wherein the first performance message is sent by the first activity component in the first message format, and wherein the means for sending the first performance message via the network to the second data store comprises:

means for translating the first performance message from the first message format into the common message format understood by the second data store.

94. (New) The system of claim 93, wherein the second activity performance request is stored in the second data store in the common message format, and wherein the means for accessing the second data store via the network to obtain the second activity performance request therefrom comprises:

means for translating the second activity performance request from the common message format into a second message format understood by the second activity component.

95. (New) The system of claim 94, wherein the second performance message is sent by the second activity component in the second message format, and wherein the means for sending the second performance message via the network to the second data store comprises:

means for translating the second performance message from the second message format into the common message format understood by the second data store.